In the Claims

1-14. (Cancelled)

15. (Currently Amended) A preform for vacuum assisted injection molding comprising:

a thermosetting resin as a matrix resin;

a plurality of stacked and integrated substrates including at least one reinforcing carbon fiber substrate comprising a reinforcing carbon fiber yarn group arranged with reinforcing carbon fiber yarns having a yield of 350 to 3,500 tex in parallel to each other in a warp-direction and having a mean gap between adjacent reinforcing carbon fiber yarns in a range of 0.1 to 1 mm, and a weft-direction auxiliary yarn group formed by auxiliary yarns extending in a direction across said reinforcing carbon fiber yarns and having a yield of 1 % or less of the yield of said reinforcing carbon fiber yarn, and having a yield of 2 tex or less; and

a powder-interlamina-toughening resin material containing thermoplastic polyetherimide, polyphenyleneether or polyethersulfone as a main constituent, the resin provided at 2 to 17 % by weight of the fiber substrate and studded at least on a surface of said reinforcing carbon fiber substrate;

such that when a composite material having a reinforcing carbon fiber volume fraction of 53 to 65 % is molded, the composite material satisfies the following properties:

(a) a compressive strength at a room temperature after impact at an impact energy of 6.67 J/mm determined by a method defined in SACMA-SRM-2R-94 is 240 MPa or more; and

(b) a 0° compressive strength at a room temperature determined by a method defined in SACMA-SRM-1R-94 is 1,350 MPa or more, and a 0° compressive strength at a high temperature after a hot/wet conditioning determined by the method is 1,100 MPa or more,

wherein a maximum cross-sectional waviness of a layer of a reinforcing fiber substrate in a section of said composite material is 0.3 mm or less.

16.   (Previously Presented) The preform according to claim 15, wherein said substrate has a warp-direction auxiliary yarn group formed by auxiliary yarns extending in a direction parallel to said reinforcing carbon fiber yarns, and the yield of the auxiliary yarn forming said warp-direction auxiliary yarn group is 20 % or less of the yield of said reinforcing carbon fiber yarn.

17.   (Currently Amended) The preform according to claim 15, wherein said substrate has a warp-direction auxiliary yarn group formed by auxiliary yarns extending in a direction parallel to said reinforcing carbon fiber yarns, a weft-direction auxiliary yarn group is disposed on each surface of said substrate, and said substrate is formed as a uni-directional noncrimp woven fabric, the weave structure of which is formed by auxiliary yarns forming said warp-direction auxiliary yarn group and auxiliary yarns forming said weft-direction auxiliary yarn group.

18.   (Currently Amended) The preform according to claim 16, wherein a ~~mean gap between adjacent reinforcing carbon fiber yarns is in a range of 0.1 to 1 mm, and~~ sizing of collecting treatment is preformed on auxiliary yarns forming said warp-direction auxiliary yarn group.

19.   (Previously Presented) The preform according to claim 15, wherein said powder-interlamina-toughening resin material is studded on at least a surface of said reinforcing carbon fiber substrate, a mean diameter of said studded resin material on the surface of said reinforcing carbon fiber substrate, viewed in plane, is 1 mm or less, and a mean height of said studded resin material from the surface of said reinforcing carbon fiber substrate is in a range of 5 to 250 μm.

20-21. (Cancelled)

22. (Currently Amended) The preform according to claim 15, wherein, when a composite material having a reinforcing carbon fiber volume fraction of 53 to 65 % is molded, the composite material satisfies the following properties (a) and (b):

(a) a non-hole compressive strength at a room temperature using a laminate ~~having~~ having a lamination structure defined in SACMA-SRM-3R-94 is 500 MPa or more; and

(b) an open-hole compressive strength at a room temperature determined by a method defined in SACMA-SRM-3R-94 is 270 MPa or more, and an open-hole ~~com pressive~~ compressive strength at a high temperature after a hot/wet conditioning determined by the method is 215 MPa or more.

23-45. (Cancelled)

46. (Previously Presented) The preform according to claim 15, wherein the thermosetting resin is an epoxy resin or a bismaleimide resin.

47. (New) A preform for vacuum assisted injection molding comprising:

a thermosetting resin as a matrix resin;

a plurality of stacked and integrated substrates including at least one reinforcing carbon fiber substrate comprising a reinforcing carbon fiber yarn group arranged with reinforcing carbon fiber yarns having a yield of 350 to 3,500 tex in parallel to each other in a warp-direction and having a mean gap between adjacent reinforcing carbon fiber yarns in a range of 0.1 to 1 mm, and a weft-direction auxiliary yarn group formed by auxiliary yarns extending in a direction across said reinforcing carbon fiber yarns and having a yield of 1 % or less of the yield of said reinforcing carbon fiber yarn, and having a yield of 2 tex or less; and

a powder-interlamina-toughening resin material containing thermoplastic polyetherimide, polyphenyleneether or polyethersulfone as a main constituent, the resin provided at 2 to 17 % by weight of the fiber substrate and studded at least on a surface of said reinforcing carbon fiber substrate;

such that when a composite material having a reinforcing carbon fiber volume fraction of 53 to 65 % is molded, the composite material satisfies the following properties:

(a) a compressive strength at a room temperature after impact at an impact energy of 6.67 J/mm determined by a method defined in SACMA-SRM-2R-94 is 240 MPa or more; and

(b) a 0° compressive strength at a room temperature determined by a method defined in SACMA-SRM-1R-94 is 1,350 MPa or more, and a 0° compressive strength at a high temperature after a hot/wet conditioning determined by the method is 1,100 MPa or more,

wherein the reinforcing fiber group is arranged with reinforcing fiber yarns in parallel to each other in one direction and spacer yarns each having a concave/convex surface are arranged between said reinforcing fiber yarns, and

wherein the resin material is adhered at 2 to 20% by weight at least to one surface of said reinforcing group.

48.   (New) A preform for vacuum assisted injection molding comprising:

a thermosetting resin as a matrix resin;

a plurality of stacked and integrated substrates including at least one reinforcing carbon fiber substrate comprising a reinforcing carbon fiber yarn group arranged with reinforcing carbon fiber yarns having a yield of 350 to 3,500 tex in parallel to each other in a warp-direction and having a mean gap between adjacent reinforcing carbon fiber yarns in a range of 0.1 to 1 mm, and a weft-direction auxiliary yarn group formed by auxiliary yarns extending in a direction

across said reinforcing carbon fiber yarns and having a yield of 1 % or less of the yield of said reinforcing carbon fiber yarn, and having a yield of 2 tex or less; and

a powder-interlamina-toughening resin material containing thermoplastic polyetherimide, polyphenyleneether or polyethersulfone as a main constituent, the resin provided at 2 to 17 % by weight of the fiber substrate and studded at least on a surface of said reinforcing carbon fiber substrate;

such that when a composite material having a reinforcing carbon fiber volume fraction of 53 to 65 % is molded, the composite material satisfies the following properties:

(a) a compressive strength at a room temperature after impact at an impact energy of 6.67 J/mm determined by a method defined in SACMA-SRM-2R-94 is 240 MPa or more; and

(b) a $0°$ compressive strength at a room temperature determined by a method defined in SACMA-SRM-1R-94 is 1,350 MPa or more, and a $0°$ compressive strength at a high temperature after a hot/wet conditioning determined by the method is 1,100 MPa or more,

wherein said substrate has a warp-direction auxiliary yarn group formed by auxiliary yarns extending in a direction parallel to said reinforcing carbon fiber yarns, and the yield of the auxiliary yarn forming said warp-direction auxiliary yarn group is 20 % or less of the yield of said reinforcing carbon fiber yarn,

wherein the yarn forming said warp-direction auxiliary yarn group has been treated with a sizing or collecting treatment.

49.   (New)   The perform according to claim 48, wherein the sizing or collecting treatment comprises a covering of the yarns and a binder.

50.   (New)   The preform according to claim 49, wherein at least one covering yarn is wrapped around the warp-direction auxiliary yarn group yarns.